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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,141	11/26/2001	Jin-Jer Hwan	4224-13US1	8593
7590	01/02/2004		EXAMINER	
Bruce T. Nelel c/o Portfoliopl P.O. Box 52050 Minneapolis, MN 55402			THAI, LUAN C	
			ART UNIT	PAPER NUMBER
			2827	

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/994,141

Applicant(s)

HWAN ET AL.

Examiner

Luan Thai

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 25-29 is/are allowed.
- 6) ☒ Claim(s) 5-7, 10-19 and 30 is/are rejected.
- 7) ☒ Claim(s) 8, 9 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election *without traverse* of Group I, claims 1-19 and 25-31, in Paper No. 7, dated 10/02/03, is acknowledged. Claims 20-24 have been canceled.

Information Disclosure Statement

2. The information disclosure statement (IDS) filed on 2/25/02 has been considered by the examiner.

Oath/Declaration

3. The declaration filed 11/26/01 is acceptable.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 5-7, 10, and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Misawa (6,239,366).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claims 5-7, 10, and 15-16, Misawa (see specifically figures 1-3, Col. 4-5-6-7) disclose an electronic device including a power distribution system, the electronic device (10) (e.g., an integrated circuit chip 10) comprising: a plurality of substantially symmetrical power distribution structures associated with the power distribution system and distributed across at least a portion of a surface of the electronic device, wherein each of the plurality of power distribution structures comprises a first power line provided a first power supply voltage; a second power line and a third power line provided a second supply voltage, wherein the second and third power lines are disposed substantially symmetrically and parallel on opposite sides of the first power line, and wherein a plurality of circuit blocks are coupled for receiving power through one or more of the plurality of power distribution structures. Misawa further discloses the electronic device being an integrated circuit chip (10) comprising a power distribution ring (26), disposed around a substantial portion of the perimeter of the integrated circuit chip, electrically coupled to the first power supply voltage pad (28) and to the plurality of power distribution structures.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa (6,239,366) in view of Aggarwal et al. (6,388,332).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claims 11-14, Misawa discloses all the limitations of the claimed invention as detailed above except for specifying the first power supply voltage being a ground voltage and the second power supply voltage being a positive voltage.

Aggarwal et al. while related to a similar structure design teach the first power line voltage being a ground voltage and the second power supply voltage being a positive voltage to provide ground and power voltages for the device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the ground and positive voltages to the first and second power supply voltages, respectively, in Misawa's device, since such ground and positive voltages are commonly used to provide the power for an electronic device, as disclosed by Aggarwal et al.

8. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa (6,239,366).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claims 17-19, Misawa discloses all the limitations of the claimed invention as detailed above except for specifying the plurality of circuit

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blocks comprising a first circuit block and a second mirror image of the first circuit block.

Applicant's claimed structures in claims 17-19 do not distinguish over the Misawa reference and it has been held that a recitation (e.g., a mirror image block) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aggarwal et al. (6,388,332).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claim 30, Aggarwal et al. disclose (see specifically figure 6 attached) an integrated circuit comprising: a first circuit block layout (34), a second circuit block layout (32); a power distribution system comprising a first power distribution structure (509/515) running substantially across the first circuit block layout (34) and a second power distribution structure (509'/515') running substantially across the second circuit block layout (32); and wherein: (i) the first and second power distribution structures are each substantially symmetrical about a central axis, substantially the same in shape, and each coupled to the power distribution system to provide first and second power supply voltages to the first and second circuit block layouts; (ii) the second circuit block layout has a

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substantially identical layout to the first circuit block layout; and (iii) the layout positions of the first and second power distribution structures relative to the corresponding first and second circuit block layouts is substantially symmetrical about a symmetry axis located between the first and second circuit block layouts. Aggarwal et al. do not explicitly teach the first circuit block being a master circuit block and the second circuit block being an image circuit block.

Applicant's claimed structures in claim 30 do not distinguish over the Aggarwal et al. reference and it has been held that a recitation (e.g., a master circuit block and an image circuit block) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

Allowable Subject Matter

10. Claims 1-4 and 25-29 are allowed.
11. Claims 8-9 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
12. The following is a statement of reasons for the indication of allowable subject matter:

The prior art taken either singly or in combination fails to anticipate or fairly suggest: *the second power line and the third power line each substantially has a*

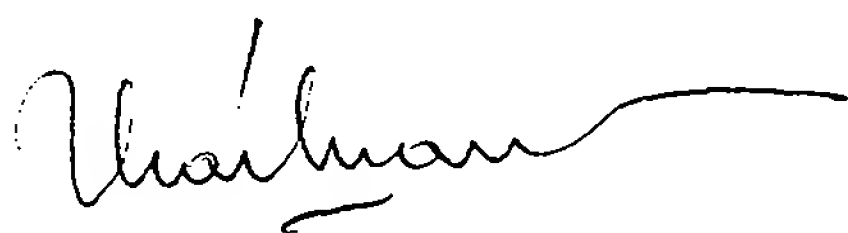
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width w and the first power line has a width equal to about twice the width w, as recited in independent claims 1 and 25 and dependent claims 8 and 31; especially when these limitations are considered within the specific combination claimed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luan Thai whose telephone number is (703) 308-1211 (after 2/05/2004 the phone number would be changed to 571-272-1935). The examiner can normally be reached on 6:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703) 308-1233 (after 1/12/2004 the phone number would be changed to 571-272-1957). The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Luan Thai', with a long horizontal flourish extending to the right.

Luan Thai
December 26, 2003